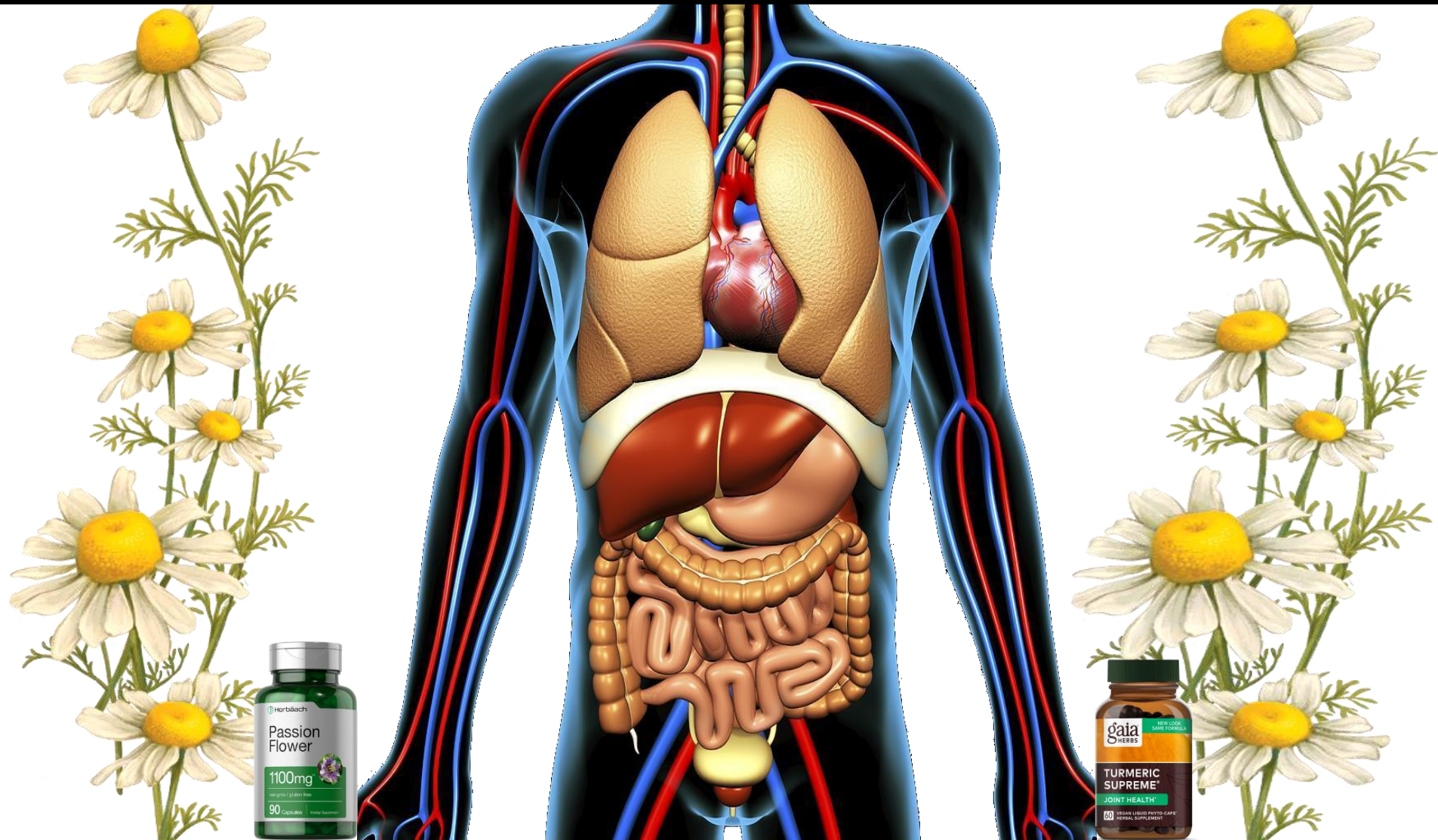


Practical Phytotherapy

{Code 3274}

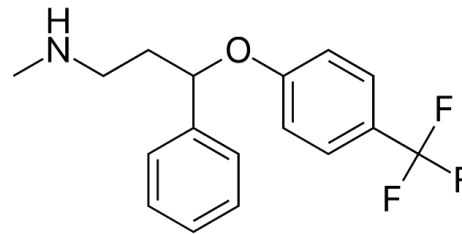


Introduction

Conventional Medicine { Western Medicine }

☐ Pure single compound or 2 or more

☐ With side effects



Fluoxetine

☐ One pharmacological activity



☐ Prozac as an Anti-depressant



Introduction

Complementary Medicine { CM }

- ❑ Used along with conventional medicine
e.g. Herbal Medicine



St. John's Wort



Introduction

Traditional Herbal Medicine



Phytotherapy



Introduction

Herbal Medicine

☐ Traditional Herbal Medicine

☐ Phytotherapy



Introduction

Phytotherapy { Phytomedicine }

❑ **Plant-derived medications used in diagnosis, treatment and prevention of disease by a Licensed Medical Persons**

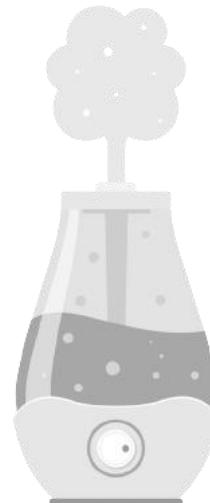


Introduction

Alternative Medicine {AM}

☐ Homeopathy {like cures like}
Ephedra for anxiety and restlessness

☐ Aromatherapy {Treatment with volatile oils}



☐ Acupuncture

Introduction

Integrative Medicine



**Conventional
Medicine**



**Life Style
and
Self Care**



**Complementary
Medicine**



Introduction

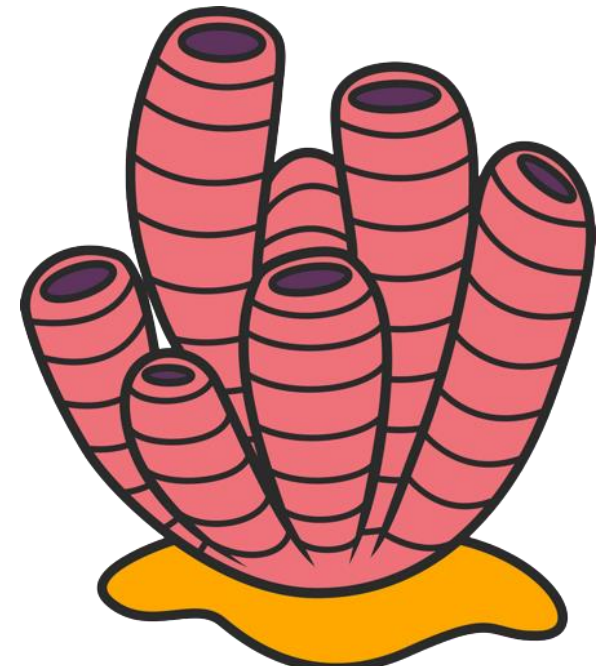
Biogenic Drugs

❑ Drugs from biological origin

Medicinal Plant



Sponge



Introduction

Scope of Phytotherapy

☐ **Mild conditions**
Fever

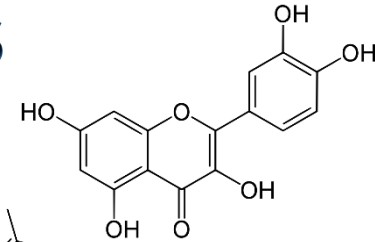
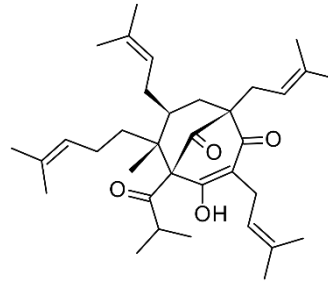


☐ **Not severe conditions**
Coma

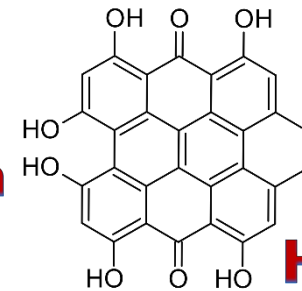


Heliopolis University
for Sustainable Development

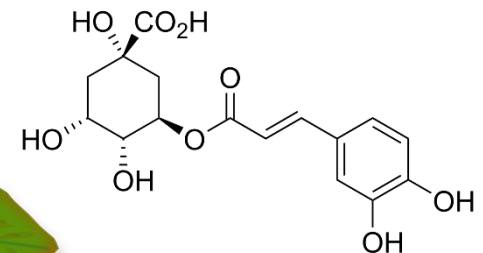
- ## St. John's wort



Quercetin



Hypericin



Chlorogenic acid

Introduction

Components of Herbal Tea

☐ **Basic ingredient**

Chaste Berries



☐ **Adjuvant**

Chamomile



☐ **Excipient**

☐ **Corrigents**

{ Mask unpleasant taste }



Introduction

Classification of Herbal Drugs Potency - Toxicity

☐ Highly potent { **Digitalis - Aconite** }



☐ Intermediately potent { **Ephedra - Datura** }

☐ Mildly potent { **Chamomile** }



Introduction

Herbal Dosage Forms

☐ Oral Dosage Forms

☐ Liquids



Syrup – Suspension – Emulsion – Decoction - Infusion

☐ Solids

Capsules – Tablets – Powders



☐ Teas

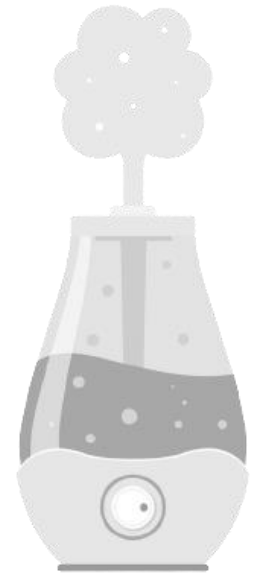


Introduction

Herbal Dosage Forms

☐ Inhalations

Fumigator



☐ Topical

Poultice – Liniment – Rubs – Decoctions

☐ Herbal baths



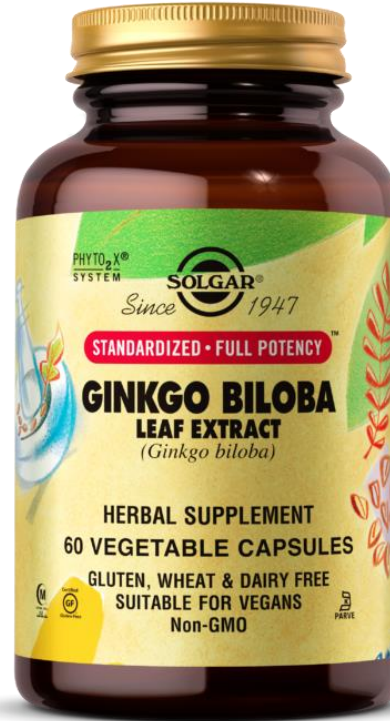
Introduction

Undesirable Effects of Herbal Medicine

- ❑ **Mislabeling { Method of use – Dose – Time }**
- ❑ **Intentional unnatural toxic substance**
- ❑ **Natural toxic ingredient**
- ❑ **Excessive ingestion**



Mislabeling

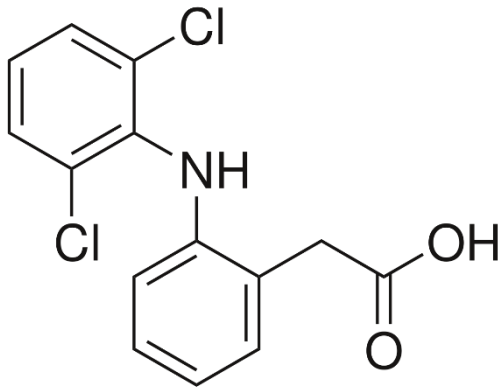
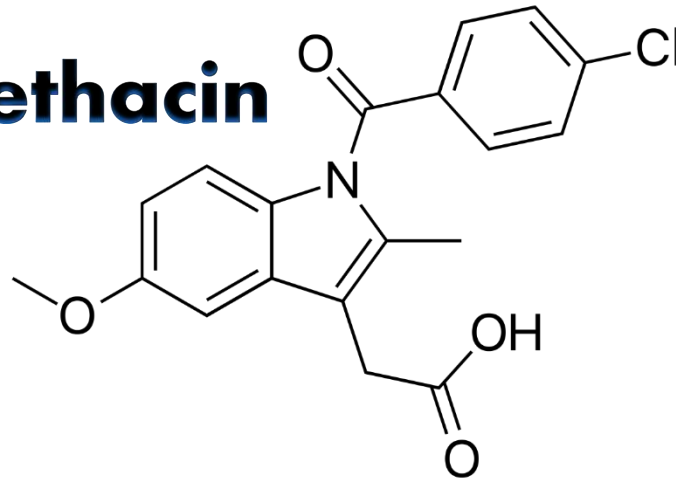


Must check

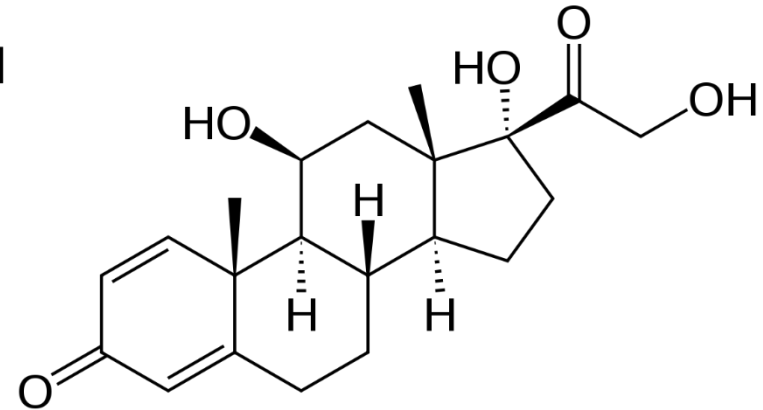
{ Method of use – Dose – Time }

Unnatural toxic substance

Indomethacin



Diclofenac



Prednisolone



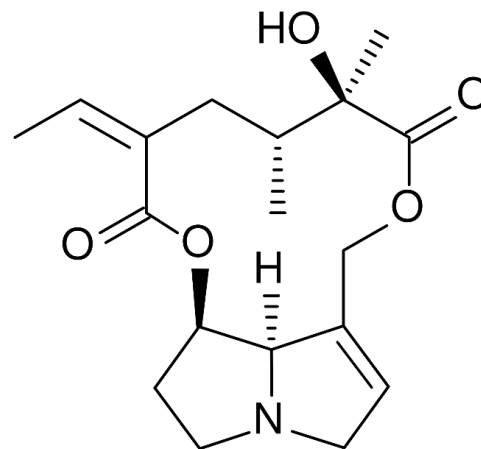
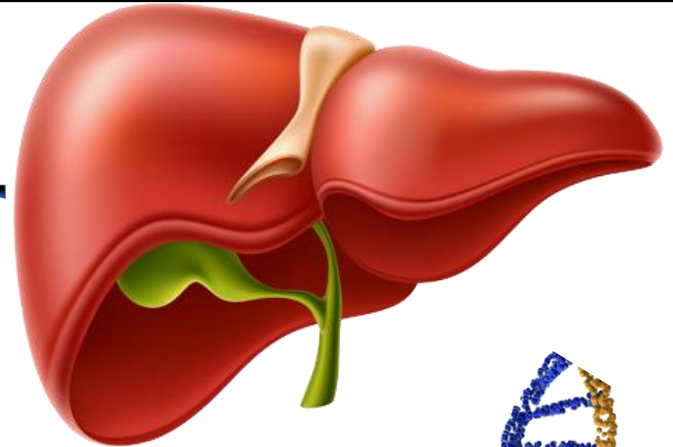
Pain relief capsules

Normal toxic substance



**Tussilago
Cough Herb**

**Liver
Tumor**



**Pyrrolizidine
Alkaloids**



**DNA
Damage**

Normal toxic substance

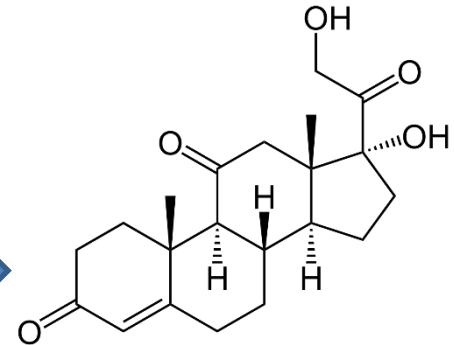
Licorice Oedema



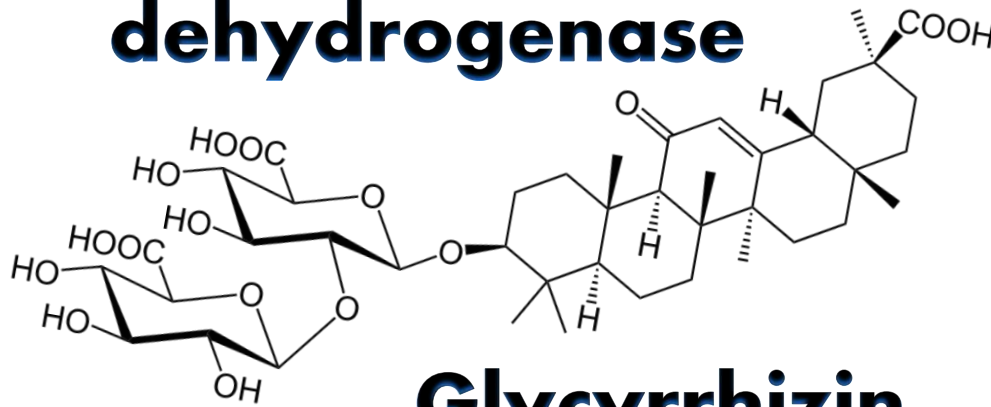
Corticosteroid 11-beta-dehydrogenase

Cortisol

Water Retention



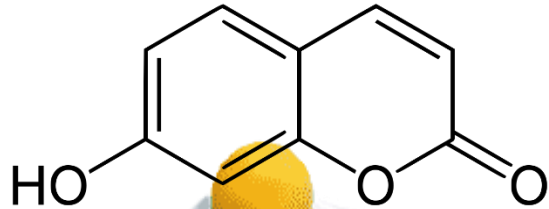
Cortisone



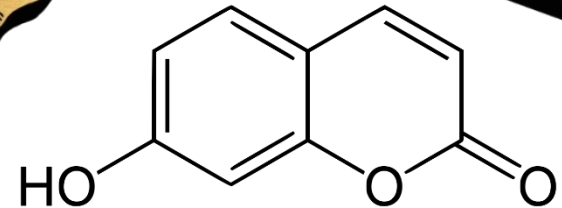
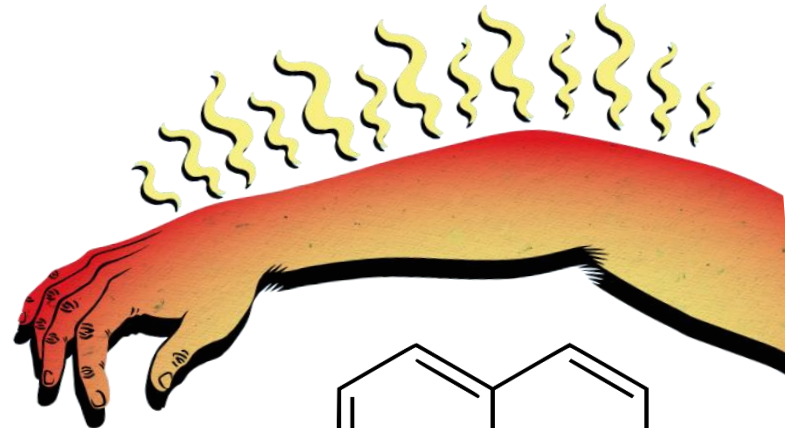
Glycyrrhizin

Chamomile excessive ingestion

Chamomile Photosensitivity



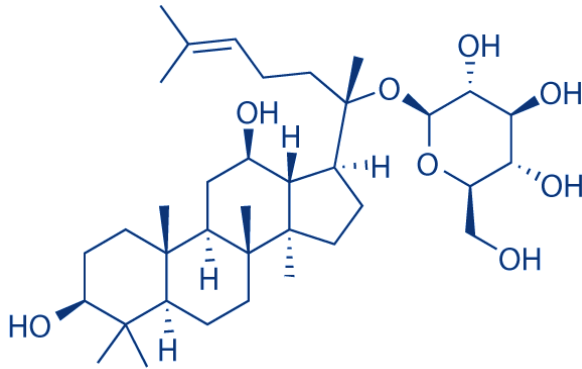
Chamomile



Umbelliferone

Ginseng excessive ingestion

- ❑ Ginseng: Causes agitation, insomnia and hypertension due to Saponins.**



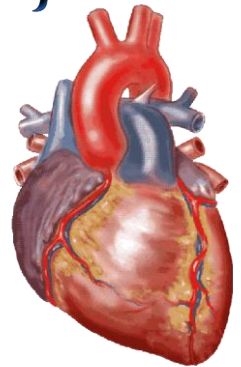
Decreases Brain MAO Activity

Introduction

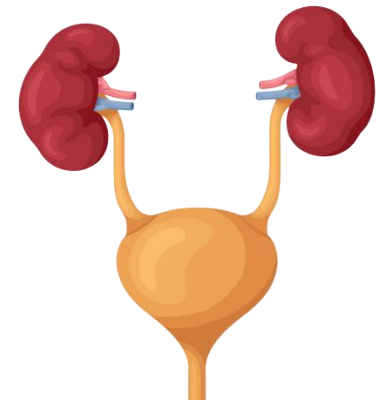
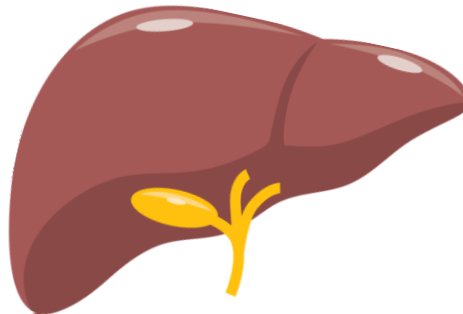
Herbal Drug Interaction

☐ Pharmacodynamics { Qualitative }

Digoxin + Ephedra
Coumarins + Aspirin

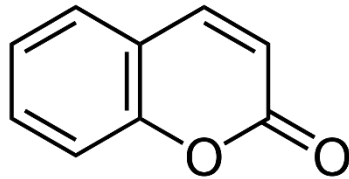


☐ Pharmacokinetics ADME { Quantitative }

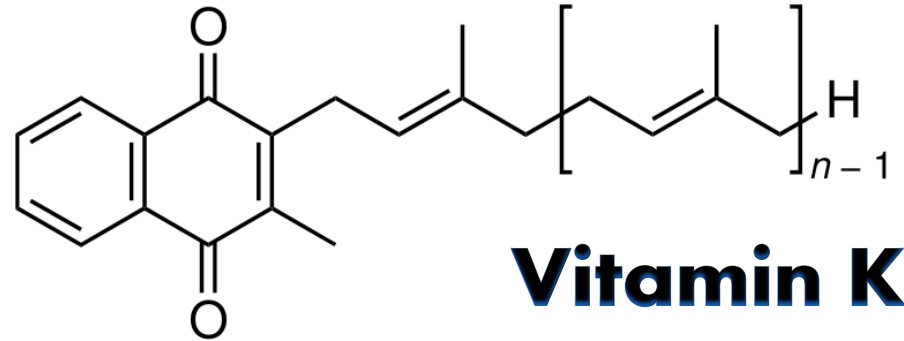


Herbal-Drug Interaction

- ❑ Coumarins in chamomile counteract Vit. K and synergize Aspirin leading to hemorrhage



Coumarin



Vitamin K

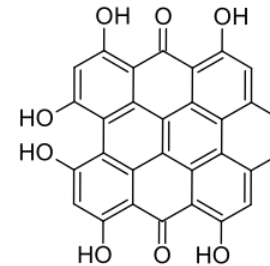
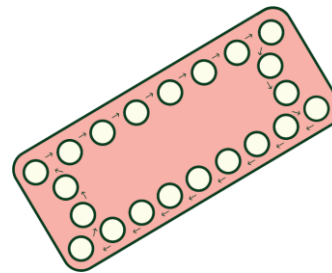
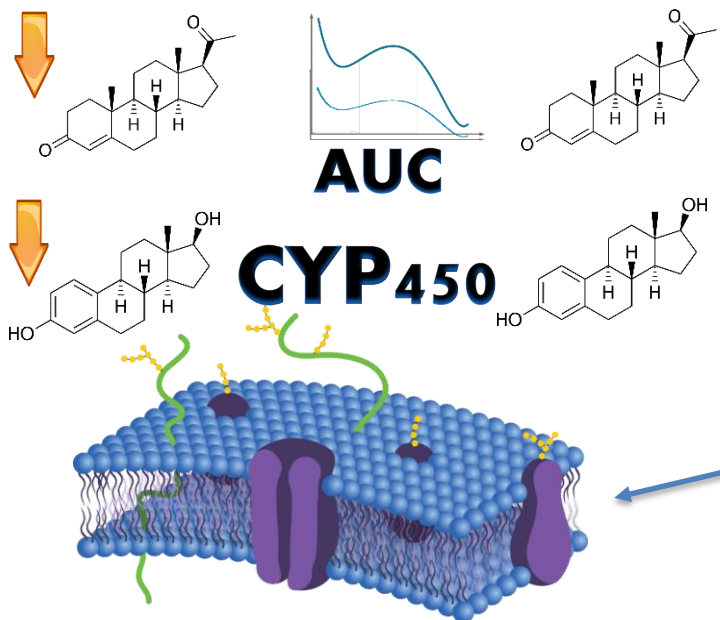


Herbal-Drug Interaction

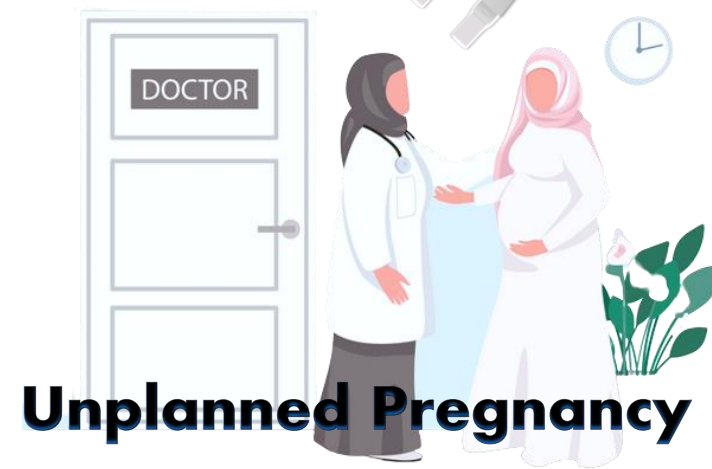
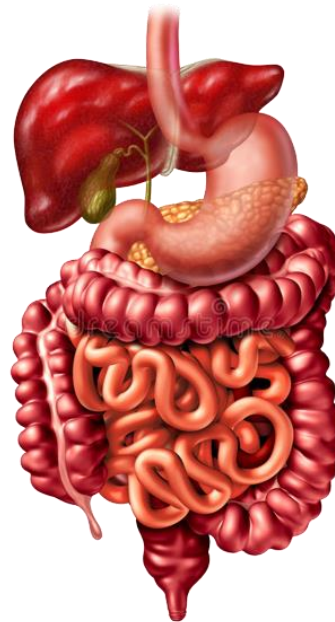
❑ St. John's wart activates CYP₄₅₀



Decreases level of contraceptives



Hypericin

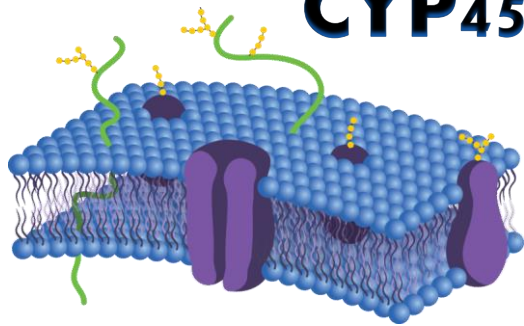
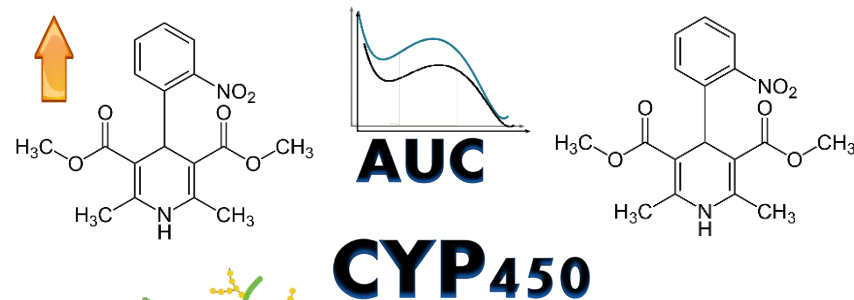


Unplanned Pregnancy

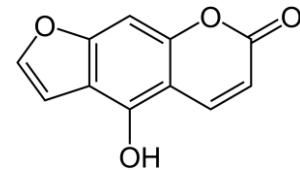
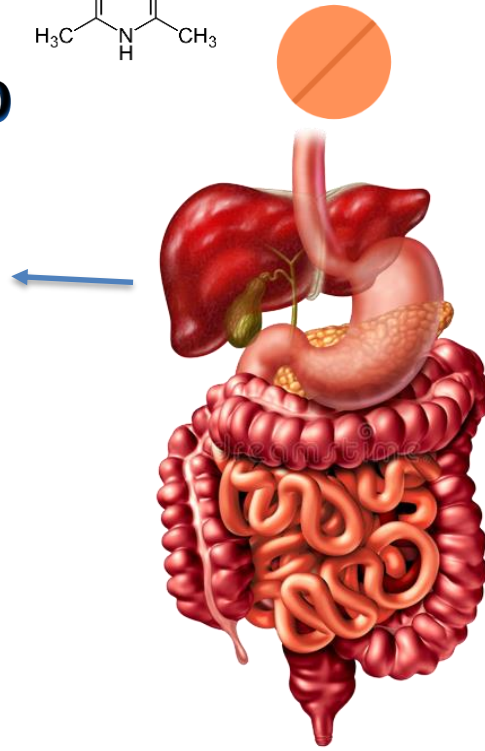
Herbal-Drug Interaction

❑ Grapefruit inhibits CYP₄₅₀

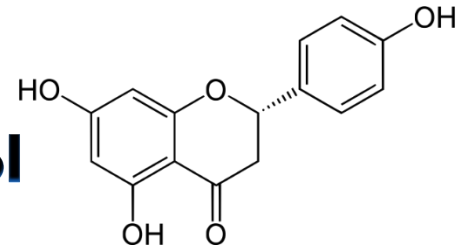
Increases level of nifedipine



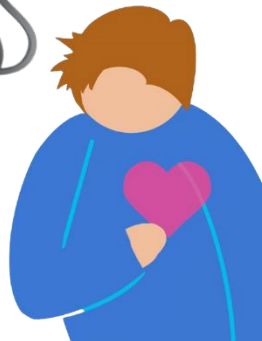
Inhibition



Bergapten



Naringenin



Hypotension

Introduction

Rules for Herbal Administration

☐ Between Meals

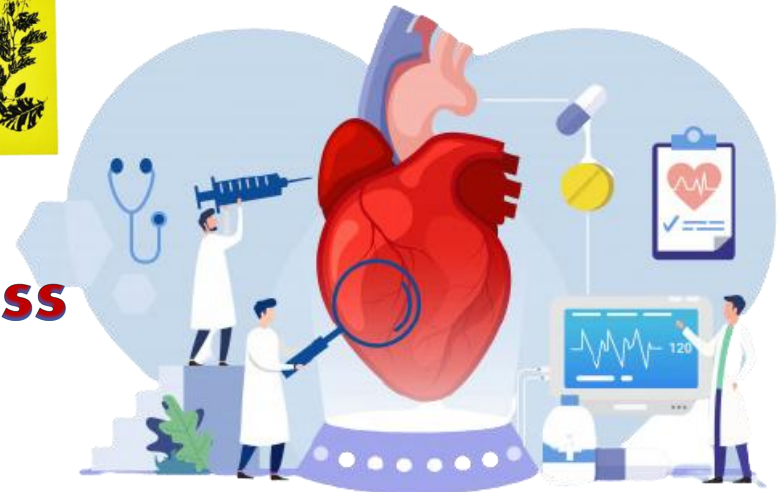
☐ Herbal Drug Interaction



Digoxin



Senna
Mineral loss

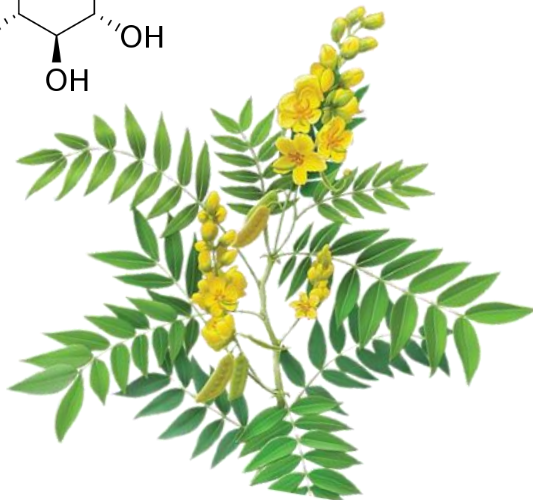
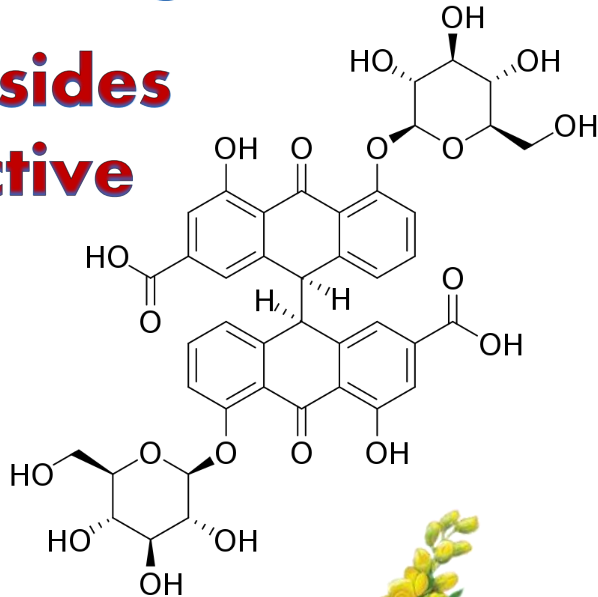


Introduction

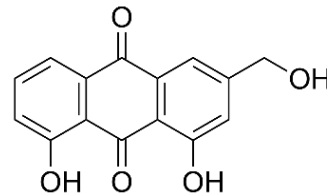
Why Using whole Herbal Extracts

☐ Synergism of different constituents

Sennosides
Bioactive

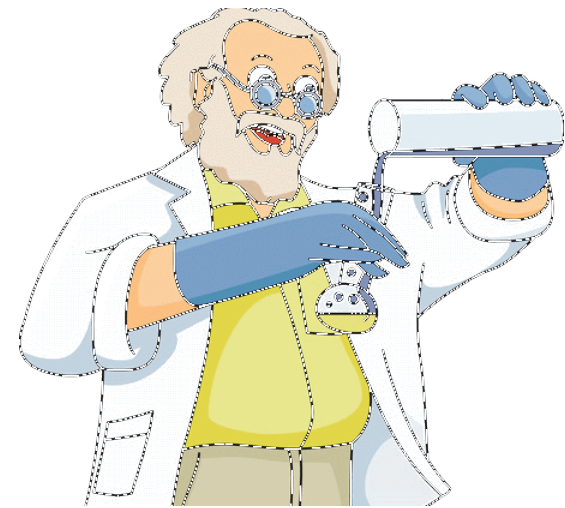


Aloe emodin
Inactive



Introduction

- ❑ Herbal drugs must be standardized { Know % active constituents } to assure **Efficacy - Quality (purity) - Safety**

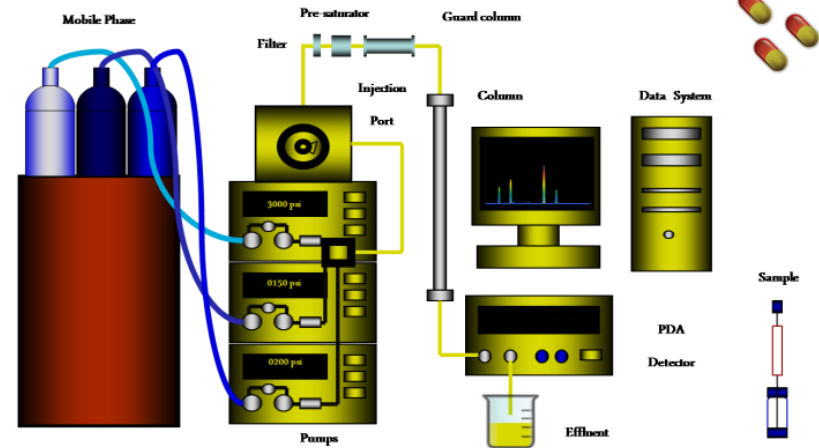


Ascites



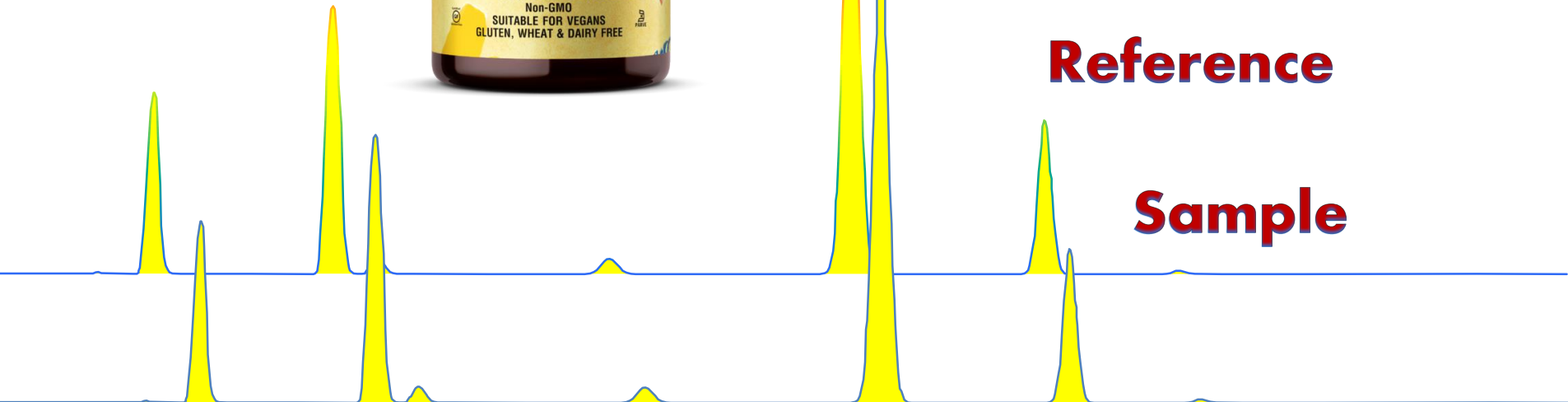
Standardization of Herbal Drugs

Chromatographic fingerprinting



Reference

Sample



Herbal Preparation

- ☐ **Name: Mentholax capsules.**
- ☐ **Dosage form: capsules.**
- ☐ **Route of administration: oral.**
- ☐ **Composition: Senna leaves + Peppermint leaves.**
- ☐ **Indication: Laxative - Haemorrhoids**
- ☐ **Role of each component:**
 - **Senna leaves: increase peristalsis so act as a stimulant laxative due to anthraquinone glycosides (sennosides A, B, C and D).**
 - **Peppermint leaves: Antispasmodic relaxes gripping effect caused by senna. Due to volatile oils.**



Case 1

- ❑ **Mr. Yasser is 65 years old. He is suffering from congestive heart failure and depression. He was taking Carbamazepine and digoxin long time ago. Last month he suffered from chronic constipation. The physician advised him to take Psyllium husk. Pains of the congestive heart failure and depression feeling returned to him. What is your advice to him?**

Case 2

- ❑ **Mrs. Marwa is 50 years old. She is suffering from cognitive disorders. She was advised to take Ginkgo capsules. She got to use warfarin to prevent the recurrence of angina pectoris resulting from arterial blood clotting. Now she is suffering from the ease of bleeding. What is your advice to her?**